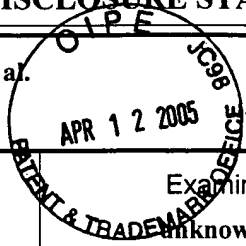


IFW

**STATEMENT UNDER 37 CFR 1.97(e) ACCOMPANYING
INFORMATION DISCLOSURE STATEMENT**

Docket No.
03100215AA

In Re Application Of: **Muhlradt et al.**



Application No.
10/509,917

Filing Date
10-4-04

Examiner
Unknown

Customer No.
30743

Group Art Unit
1645

Confirmation No.
4470

**Invention: USE OF A LIPOPEPTIDE OR LIPOPROTEIN AS AN ADJUVANT IN THERAPEUTIC OR
PROPHYLACTIC VACCINATIONS**

COMMISSIONER FOR PATENTS:

This is a statement under the provisions of 37 CFR 1.97(e) in the above-identified application.

Check applicable statement herebelow:

Statement Under 37 CFR 1.97(e)(1)

- ☐ Each item of information contained in the accompanying Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement.

Statement Under 37 CFR 1.97(e)(2)

- ☒ No item of information contained in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned person, after making reasonable inquiry, no item of information contained in the accompanying Information Disclosure Statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

Signature

Dated: **4-12-05**

Marshall M. Curtis
Reg. # 33,138
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Certificate of Mailing by First Class Mail

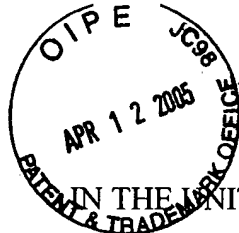
I certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

(Date)

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

CC:



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Muhlradt et al.

Serial No. 10/509,917

Group Art Unit: 1645

Filed: 10-4-04

Examiner: unknown

**For: USE OF A LIPOPEPTIDE OR LIPOPROTEIN AS AN ADJUVANT IN
THERAPEUTIC OR PROPHYLACTIC VACCINATIONS**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Under the provisions of 37 C.F.R. 1.97 through 1.98 and pursuant to applicant's duty of disclosure under 37 C.F.R. 1.56, applicant respectfully brings the following documents, cited in a International Search Report for the above- identified patent application and listed on the attached forms PTO-1449, to the attention of the Examiner in charge of the above-identified application

This citation does not constitute an admission that the references are relevant or material to the claims. They are only cited as constituting related art of which the applicant is aware.

It is respectfully requested that the listed references be formally made of record in the application. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in black ink, reading "Marshall M. Curtis". The signature is fluid and cursive, with the first name "Marshall" being the most prominent part.

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INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Docket Number (Optional)

03100215AA

Application Number

10/509,917

Applicant(s)

Muhradt et al.

Filing Date

10-4-04

Group Art Unit

1645

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

U.S. PATENT APPLICATION PUBLICATIONS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
	1	WO 99/59610	11-25-99	PCT				✓
	2	WO 98/27110	6-25-98	PCT				✓
	3	WO 93/22343	11-11-93	PCT				✓
	4	DE 196 52 586 A1	12-17-96	Germany				✓

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

1	XP-002227431 Shibata et al. "The N-Terminal Lipopeptide of a 44-kDa Membrane-Bound Lipoprotein of Mycoplasma salivarium Is Responsible for the Expression of Intercellular Adhesion Molecule-1 on the Cell Surface of Normal Human Gingival Fibroblasts" The Journal of Immunology, ppg. 6538-6544; 12-1-00
2	XP-002070516 Muhradt et al. "Identification of S-(2,3 Dihydroxypropyl) cystein in a Macrophage-Activating Lipopeptide from Mycoplasma fermentas" American Chemical Society, Biochemistry Vol. 35 No. 24; ppg. 7781-7786 1996

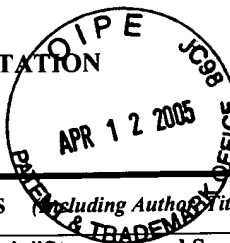
EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



Docket Number (Optional) 03100215AA	Application Number 10/509,917
Applicant(s) Muhradt et al.	
Filing Date 10-4-04	Group Art Unit 1645

*EXAMINER INITIAL	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
3	XP-002254742 Muhradt et al. "Structure and Specific Activity of Macrophage-Stimulating Lipopeptides from Mycoplasma hyorhinitis" Infection and Immunity, American Society of Microbiology, Vol. 66 No. 10; ppg. 4804-4810 1998
4	XP002254743 Rharbaoui et al. "The Mycoplasma-derived lipopeptide MALP-2 is a potent mucosal adjuvant " Eur J. Immunol, ppg. 2857-2865; 2002
5	McGhee et al. "The mucosal immune system: from fundamental concepts to vaccine development" Reviews, Vaccine, Vol. 10 Issue 2 1992; ppg. 75-88
6	Holmgren et al. "Cholera toxin and cholera B subunit as ora-mucosal adjuvant and antigen vector systems" Reviews, Vaccine, Vol. 11, Issue 12 1993; ppg. 1179-1184
7	Douce et al. "Mutants of Escherichia coli heat-labile toxin lacking ADP-ribosyltransferase activity act as nontoxic, mucosal adjuvants" Proc. Natl. Acad. Sci, USA, Vol. 92, Feb. 1195; pp.1644-1648,
8	Van Ginkel et al. "Cutting Edge: The Mucosal Adjuvant Cholera Toxin Redirects Vaccine Proteins into Olfactory Tissues" The Journal of Immunology, ppg. 4778-4783; 2000
9	Muhradt et al. "Isolation, Structure Elucidation, and Synthesis of a Macrophage Stimulatory Lipopeptide from Mycoplasma fermentans Acting at Picomolar Concentration" The Rockefeller University Press, Vol. 85, No. 11, June 2, 1997; ppg. 1951-1958
10	Takeuchi et al. "Cutting Edge: Preferentially the R-Stereoisomer of the Mycoplasmal Lipopeptide Macrophage-Activating Lipopeptide-2 Activates Immune Cells Through a Toll-Like Receptor 2-and MyD88-Dependent Signaling Pathway" The Journal of Immunology, Cutting Edge; ppg. 554-557
11	Frisch et al. "Mycoplasma fermentans-derived lipid inhibits class II major histocompatibility complex expression without mediation by interleukin-6, interleukin-10, tumor necrosis factor, transforming growth factor-B, type I interferon, prostaglandins or nitric oxide" Eur. J. Immunol, ppg. 1050-1057; 1196
12	Metzger et al. "Synthesis of N-Fmoc protected derivatives of S-(2,3-dihydroxypropyl)-cysteine and their application in peptide synthesis
	13. Article titled: "Phosphoglycerides" ppg. 67-105
	14. Burgos et al. "A new, Asymmetric Synthesis of Lipids and Phospholipids" The American Chemical Society, ppg. 4973-4977; 1987
15	Morr et al. "Differential recognition of structural details of bacterial lipopeptides by toll-like receptors" Eur. J. Immunol, ppg. 3337-3347; 2002
EXAMINER	DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.